

EN 50288-7 (500 V)



CABLE STRUCTURE

Conductor	Electrolytic, stranded, annealed plain copper wires to IEC 60228 Class 2 (Class 1 or Class 5 and / or tinned on request)
Insulation	PVC compound to EN50290-2-21 Black / White / Red twisted triads with numbered cores
Binder Tape	Polyester foil on each twisted triad
Individual Screen	Aluminum/polyester foil with a tinned copper drain wire in direct contact with the metallic side of the foil
Binder Tape	Polyester foil on overall cable core formed by stranded triples
Collective Screen	Aluminum/polyester foil with a tinned copper drain wire in direct contact with the metallic side of the foil
Outer Sheath	Flame retardant PVC compound to EN50290-2-22 Blue for intrinsically safe cable Black for UV resistant and/or non-intrinsically safe cable Other colours on request

STANDARDS & MAIN CHARACTERISTICS

Rated Voltage	500 V a.c.
AC Test Voltage	2000 V (core:core / core: screen)
Working Temperature	-30°C / + 70°C (during operation) - 5 °C / + 50°C (during installation)
Min Bending Radius (Fixed)	7,5 x D
Construction	EN 50288-7
Material Types & Tests	EN 50290-2 series
Electrical & Mechanical Tests	EN 50289 series
Flame Retardant	IEC 60332 / 1-2, IEC 60332 / 3-24 Cat C

Available Features on Request

- 300 V version
- Hydrocarbon resistant
- Oil resistant
- UV resistant
- Yw 105°C version
- Yv type reinforced sheath
- Anti termit / anti rodent
- LSF (Low Smoke) version

Application

These cables used for connecting instruments and control systems for analogue or digital signal transmission for indoor and outdoor applications. These cables shall not be connected directly to mains electricity supply or other low impedance sources, since they are not designed to be used for power supply.

ELECTRICAL CHARACTERISTICS(*)

Conductor size (Class 2)	nom.	mm ²	0,5	0,75	1	1,3	1,5	2,5
Conductor resistance	max.	Ω/km	36,7	25,0	18,5	14,2	12,3	7,6
Insulation resistance	min.	MΩxkm	100					
Mutual Capacitance	max.	nF/km	250					
Inductance	max.	mH/km	1					
L/R ratio	max.	μH/Ω	25	25	25	40	40	60

(*) At 20 °C

PHYSICAL CHARACTERISTICS

Cross Sections (mm ²)	Nominal Overall Diameter (mm)	Approximate Weight (kg/km)
2x3x0,5	11,0	123
4x3x0,5	13,0	201
5x3x0,5	14,2	240
6x3x0,5	15,6	285
8x3x0,5	17,5	360
10x3x0,5	20,1	447
12x3x0,5	20,9	523
16x3x0,5	23,4	675
20x3x0,5	26,3	832
24x3x0,5	29,3	994
2x3x0,75	12,1	150
4x3x0,75	14,4	251
5x3x0,75	15,9	307
6x3x0,75	17,3	358
8x3x0,75	19,7	464
10x3x0,75	22,5	575
12x3x0,75	23,5	674
16x3x0,75	26,3	871
20x3x0,75	29,5	1075
24x3x0,75	32,9	1284
2x3x1	12,7	172
4x3x1	14,8	280
5x3x1	16,4	344
6x3x1	18,1	410
8x3x1	20,3	521
10x3x1	23,5	659
12x3x1	24,3	761
16x3x1	27,2	986
20x3x1	30,5	1217
24x3x1	34,2	1471

Cross Sections (mm ²)	Nominal Overall Diameter (mm)	Approximate Weight (kg/km)
2x3x1,3	13,5	200
4x3x1,3	15,9	338
5x3x1,3	17,4	407
6x3x1,3	19,2	486
8x3x1,3	21,8	631
10x3x1,3	25,0	784
12x3x1,3	26,0	921
16x3x1,3	29,1	1195
20x3x1,3	32,7	1477
24x3x1,3	36,5	1764
2x3x1,5	14,0	214
4x3x1,5	16,6	366
5x3x1,5	18,4	450
6x3x1,5	20,1	526
8x3x1,5	22,8	684
10x3x1,5	26,3	962
12x3x1,5	27,2	1000
16x3x1,5	30,5	1300
20x3x1,5	34,4	1621
24x3x1,5	38,4	1936
2x3x2,5	16,7	304
4x3x2,5	19,8	528
5x3x2,5	21,9	650
6x3x2,5	24,1	775
8x3x2,5	27,4	1010
10x3x2,5	31,6	1267
12x3x2,5	32,7	1473
16x3x2,5	36,8	1935
20x3x2,5	41,3	2391
24x3x2,5	46,3	2877